

**Notice of Allowability**

Application No.

09/640,453

Examiner

Courtney D. Fields

Applicant(s)

ARNOLD ET AL.

Art Unit

2137

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02 June 2005.
2. ☒ The allowed claim(s) is/are 1-46.
3. ☒ The drawings filed on 17 August 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**EMMANUEL L. MOISE**  
**SUPERVISORY PATENT EXAMINER**

### DETAILED ACTION

1. Claims 1-46 are pending.

#### *Response to Arguments*

2. Applicant's arguments filed 02 June 2005 have been fully considered and they are persuasive.

#### *Allowable Subject Matter*

3. **Claims 1-46** are allowed.
4. The following is an examiner's statement of reasons for allowance: The present invention is directed towards a method and apparatus for replicating and analyzing undesirable software entities, such as worm programs, in an emulated data processing and communication environment. Each independent claim identifies the uniquely distinct features **"executing the software program of an isolated network without having a direct connection to another isolated network, monitoring the operation of a software program, and analyzing data within the emulation environment by emulating the behavior of a software program over the network"**.

The closest prior art Schnurer et al. (US Patent No. 5,842,002) discloses a computer virus trapping device that detects and eliminates computer viruses before they can enter a computer system and wreck havoc on its files, peripherals, etc., either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

The closest prior art Nachenburg (US Patent No. 5,826,013) discloses a polymorphic anti-virus module comprising a CPU emulator for emulating the target program, a virus signature scanning module for scanning decrypted virus code, and an emulation control

module, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

The closest prior art Chi (US Patent No. 5,978,917) discloses an apparatus and method for detecting the presence of macro viruses within a digital computer, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

The closest prior art McLain, Jr. (US Patent No. 5,812,826) discloses a method and apparatus for emulating a change-of-state report network fully tests a monitor and/or control system, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

The closest prior art Chambers (US Patent No. 5,398,196) discloses a behavior analyzing antivirus program detects viral infection of a target program by emulating the execution of the target program and analyzing the emulated execution to detect viral behavior, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

5. Therefore, **claims 1,27 and 37**, and the respective **dependent claims 2-26, 28-36, and 38-46** are in condition for allowance.


### ***Conclusion***

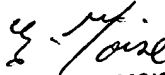
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney D. Fields whose telephone number is 571-272-3871. The examiner can normally be reached on Mon - Thurs. 6:00 - 4:00 pm; off every Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
cdf  
August 16, 2005

  
**EMMANUEL L. MOISE**  
**SUPERVISORY PATENT EXAMINER**